Tobacco use in pregnancy: a window of opportunity for prevention

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Tobacco use is poised to kill as many as 1 billion people in the 21st century, primarily from non-communicable diseases.[1] Less often noted is the effect of tobacco use and second-hand smoke exposure on maternal and child health. Cigarette smoking during pregnancy poses serious risk to the mother and her developing child, and second-hand smoke exposure is now recognised as an important cause of adult and child morbidity and mortality.[2,3] Pregnancy is an ideal opportunity to intervene with mothers and families to prevent and control tobacco use, and should be a priority for both tobacco control and maternal and child health experts.

Understanding the scope of maternal tobacco use and mothers' and children's second-hand smoke exposure to intervene and address these problems requires up-to-date, nationally representative, comparable data. However, surveillance deficits are common, even in high-income countries in which women's tobacco use has been a problem for decades.[4] Deficits in data are far more pronounced in low-income and middle-income countries (LMICs), especially those in which tobacco control efforts are not yet robust.

In *The Lancet Global Health*, Rishi Caleyachetty and colleagues[5] provide the most comprehensive assessment of tobacco use in pregnant women in LMICs so far. The authors used data from the nationally representative household Demographic and Health Surveys (DHS) that provide data for many topics, including tobacco use in pregnancy. In 54 countries where the DHS was conducted between 2001 and 2012, the overall prevalence of any form of tobacco use in pregnant women was 2·6% (1·3% smoking; 0·9% smokeless tobacco). Tobacco use during pregnancy was reported in all WHO regions, and some countries had much higher maternal smoking rates, such as Nepal (5·9%), Jordan (9·6%), and Turkey (15·0%). In 21 countries, maternal smokeless tobacco use was higher than was tobacco smoking, emphasizing the importance of assessing all forms of tobacco use.

Although these findings provide a crucial baseline, substantial research needs remain. For example, we know comparatively little about patterns of tobacco use in pregnancy, especially for products other than manufactured cigarettes. We also know little about factors that contribute to tobacco use during pregnancy, which are likely to vary within and between countries and geographic regions. Finally, data for second-hand smoke exposure are insufficient. Household second-hand smoke exposure is likely to be substantial in countries with high male smoking rates; in women and children, the disease burden from second-hand smoke exposure could well equal or exceed that from direct smoking in many LMICs.

One of the bright spots in global tobacco control efforts has been the relatively low prevalence of tobacco use in women, particularly in LMICs. In 2011, for example, the estimated overall global prevalence of tobacco smoking among women (aged ≥15 years) was 8% compared with 36% for men.[6] The importance of averting a rise in prevalence of tobacco use in women—and not taking lower rates of use for granted—has long been recognised.[7] A key challenge will be to constrain the growth in women's tobacco use, as cultural and economic barriers fall in the face of economic globalisation, modernisation, and crucially needed improvements in the status of women.[8]

Concrete efforts are underway to address tobacco use in pregnancy. In 2013, WHO published recommendations for the prevention and management of tobacco use and second-hand smoke exposure in pregnancy, noting that pregnancy is often a window of opportunity to intervene with women and their families.[9] The document provides evidence-based guidelines applicable to all countries, and urges health centres, hospitals, and clinics to practise what their providers preach through access to tobacco-free health-care facilities and having health-care providers as tobacco-free role models. Regrettably, rates of tobacco use in health professionals remain high in many countries, and tobacco-free health-care facilities are not yet the global norm.

Much remains to be done. In the 20th century, the tobacco industry succeeded in "engineering the consent" of women in high-income countries to embrace tobacco use, resulting in millions of premature deaths.[10] Similar tactics are now being deployed towards

women in many LMICs, because, as Caleyachetty and colleagues rightly observe, as long as tobacco use remains much lower in women than men, women will constitute an obvious target for multinational tobacco companies. Despite progress, many challenges remain to improve global maternal and child health. Increased tobacco use by pregnant women will worsen pregnancy outcomes, especially in resource-poor settings, and threatens to undermine or reverse hard-won gains in maternal and child health. Conversely, taking advantage of a vital window of opportunity to intervene can prevent an even greater burden of tobacco-caused disease and provide lasting benefits for women and their families.

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We declare no competing interests. MB and MP are employed by the US National Cancer Institute, which approved publication of the Comment.

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